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André Bazin on Automatically Made Images

I. THE QUESTION OF AUTOMATIC PRODUCTION

In his essay "The Ontology of the Photographic Image," André Bazin, the French film critic and theorist, asserts that photographs are objective representations, because they are mechanically or automatically made from phenomena in nature.[1] For Bazin, the property of being an automatically-made physical effect distinguishes photographs from other pictorial representations, such as paintings. However, some aestheticians object to Bazin's thesis that photographs are automatic in some exclusive sense. Noël Carroll, for example, asserts that Bazin's causal definition for automatically-made physical effects is too broad to differentiate photographs from paintings. In a direct attack on what he refers to as Bazin's "automatism argument," Carroll denies "the basic premise that some sort of objectivity is built into the photographic medium because it is a mechanical or automatic process."[2] In this essay, I defend Bazin's basic premise that there is a special type of objectivity associated with photography because photographs are automatically made in an exclusive sense.

II. THE PHOTOGRAPH AS PHYSICAL EFFECT

In "The Ontology of the Photographic Image," an essay published in 1945, André Bazin asserts that photographs and films are products of an automatic process which differentiates them from paintings and other works of art. He defines the character of this automatic process by using a causal or genetic narrative.

To isolate the properties which render photography a physical process that is automatic, Bazin combines his causal approach with additional remarks concerning the location of human agents and acts of creative intervention by persons. In the passage below, he suggests that a photograph is automatically made, because it results from a causal chain of a type that contains no intervening human agents.

> The originality of photography in relation to painting lies then in its essential objectivity. Besides, the group of lenses which constitutes the photographic eye substituted for the human eye is called precisely "objective."[3] For the first time, between the initial object and its representation [*représentation*] nothing besides another object interposes itself. For the first time, an image of the exterior world [*monde extérieur*] is formed automatically without creative intervention by man, according to a rigorous determinism [*sans intervention créatrice de l'homme (sic), selon un déterminisme rigoureux*]. The personality of the photographer enters into the action only by the choice, the orientation, the pedagogy of the phenomenon; if it is visible [*si visible*] in the final work, it does not appear there with the same heading [*pas au même titre*] as that of painting. All the arts are based on the presence of man, in photography alone we enjoy its absence. It acts on us as a natural phenomenon, like a flower or a snowflake, the beauty of which is inseparable from vegetable or earthly origins.[4]

Bazin's original French text strongly suggests that he has a physical (or let us say, more loosely, "scientific" or "empirical") relation in mind, when he describes the automatic production of representations that are both visible and photographic. He claims that automatically made images are formed "according to a rigorous determinism" (*selon un déterminisme rigoureux*) from objects located in the external world (*monde extérieur*).[5] Both the words "rigorous determinism" and "external world" strongly suggest that the automatic process terminating in a photo-

graph consists of a chain of physical events that any observer may perceive and confirm.

Bazin's practice of describing the process of photography in terms of the phenomenon of light provides a second reason for concluding that his explanation for the automatic character of photographs depends upon observable causal conditions. In a footnote to an earlier paragraph in "The Ontology of the Photographic Image," where he compares the process of photography with the molding which occurs during the production of death masks, Bazin describes the sense in which photography is an automatic process: "one could consider photography as a molding, the taking of an imprint from the object by the manipulation of light."[6] Thus, when Bazin writes, in the passage quoted at length above, that nothing besides "another object" intervenes between an originating object and the final photographic image, he probably intends the following point: light or some other form of electromagnetic radiation functions as an impersonal (or non-human) physical agent. It is this that leads him to say that photographs are produced in a mechanical or automatic manner.[7]

III. THE AUTOMATICALLY MADE PHYSICAL EFFECT: TWO CONDITIONS

But how does Bazin distinguish those chains of physical events that end in photographs from those chains which terminate in paintings? Is he able to specify some antecedent causal condition that marks every photograph as automatically made in some exclusive sense? On this question, Bazin's remarks in "The Ontology of the Photographic Image" suggest that he restricts the denotation of the terms "formed mechanically" and "automatically made" to a *proper subset* of the larger class of physical effects. If we study the paragraph already quoted above, it is clear that Bazin's text implies at least two necessary conditions for any physical effect that is also automatically produced.

Bazin's first necessary condition for an automatic effect is expressed in the following sentence: "For the first time, between the initial object and its representation, nothing besides another object interposes itself." To put this another way, only *objects* exist between the initial object of representation and the final image (*rien ne s'interpose qu'un autre objet*).[8] Thus, Bazin holds that a physical effect is automatically made only if the causal chain terminating in that effect contains no physical event that is both *between* the object of representation and the final image and at the same time co-extensive with a human agent. This first necessary condition for any automatically-made physical effect is a corollary of a more general, or global, claim that occurs in Bazin's very next sentence: "For the first time, an image of the exterior world is formed automatically without creative intervention by man, according to a rigorous determinism" (*sans intervention créatrice de l'homme [sic], selon un déterminisme rigoureux*). Clearly, if an image is automatically made only if it is produced without creative intervention by any person, then any causal chain used to differentiate automatically-made effects must not contain any intervening human agents on that part of the causal pathway that extends between the object of representation and the final photograph.

Bazin's more global statement—that an effect is an automatic product only if it is made without creative intervention by human agents—also implies a second corollary which may serve as a second necessary condition for any automatically-made image. On a strict reading of Bazin's text, the phrase "without creative intervention" (*sans intervention créatrice*) becomes a blanket restriction that applies to any and all members of the set of human agents or persons.[9] Thus, Bazin's position implies that persons *from whom* photographs are made do not intervene creatively in the photographic process. Thus, for Bazin, the causal chain which defines a photograph as an automatically-made effect must *never begin* with a human agent who may be said to intervene creatively in the production of the final photographic effect.[10]

Bazin's essay, "The Ontology of the Photographic Image," contains three theses. First, each physically existing photograph or film frame is rigorously determined by antecedent causal conditions. Second, the causal process between the originating physical object and the final photograph must be constituted by electromagnetic events.[11] Third, a causal process is automatic in Bazin's sense only if it contains no *intermediate* physical event coextensive with a human agent, and no *initial* physical event coextensive with a human agent who intervenes creatively in the production of the final causal product.

IV. CARROLL'S COUNTERARGUMENT

Having advanced the above interpretation for Bazin's theory, let us consider Noël Carroll's counterargument for the contrary conclusion that photographs and film frames are not automatically made in some exclusive sense. Although he makes significant progress in identifying Bazin's theory of photography as a causal account, Carroll also argues that Bazin's causal definition for automatically-made products is too broad to differentiate photographs and films from typescripts and paintings.

Carroll's attack on the theory of automatic production stems from his own interpretation of Bazin's claim that photographs are objective in character because they are products of an automatic process. According to Carroll, "Bazin claims that the automatic nature of photographic reproduction is objective in the sense that the photographic image is a natural product—like a snowflake."[12] Thus, as Carroll would have it, Bazin holds that an automatic photograph is objective because it is a natural product—not because it is a natural product differentiated by some further condition related to creative intervention by persons. Having started in this way, Carroll denies that Bazin's concept of an automatic process marks any genuine difference in kind between the causal process of photography and that of any other medium, such as typewriting or painting. In the paragraph below, Carroll concludes that the automatic character attributed by Bazin to photography is associated with every physical medium.

> When I write a novelistic description of a room and my fingers touch the keyboard of my IBM typewriter, the process of printing the words is automatic. Is the mechanical process between me and the final text any less automatic with the typewriter than with the camera? Indeed, there is a way in which it is appropriate to describe a typewritten (or even a handwritten) page as a natural product, if what one means by that is that the page is a result of a causal process. Likewise, painting also has a physical, natural, causal dimension. As Douglas Lackey points out, "once the painter touches his [*sic*] brush to the canvas, there are certain things that will happen automatically. The paint, for example, must flow at a certain rate given the condition of the brush." That is, the medium has a physical dimension whose mechanical manipulation involves a natural, causal process. Every medium that involves representation involves causation in the process of physically manifesting the representation in question. Every representation in every media is, in some sense, a product of a causal process. Cinema and photography are not alone in this respect. Every medium in some degree has a physical-process dimension and, therefore, has some aspects of "the automatic" about it. Thus, at best, the sort of objectivity that Bazin attributes to cinema can differ only in degree rather than in kind from a similar type of objectivity to be found in all representational media.[13]

A short version of this counterargument is succinctly expressed: "Every medium in some degree has a physical-process dimension and, therefore, has some aspects of 'the automatic' about it." But Carroll introduces additional premises that deserve scrutiny. His third sentence suggests that typewriting is a natural process, if it is a causal process. The quote from Lackey's article is used to develop the premise that painting is an automatic process, because it is "a natural, causal process." Carroll states that the process of physically manifesting a painted representation is both natural and causal. Thus, there is also a long version of Carroll's counterargument: every medium of art is a physical process, every physical process is a causal process, every causal process is natural, and every natural process is automatic; so, every medium of art is a physical process that is automatic.

Let us evaluate Carroll's argument carefully. There is no particular problem with the main premise—that every medium of art has a physical dimension.[14] Carroll's assertion that physical effects are causal products is also plausible; indeed, on my interpretation of the original French text, Bazin asserts that photographs and paintings have a physical dimension, and also that physical effects are the products of scientifically observed causal chains. Carroll also has warrant for his claim that a causal product is a natural product, since Bazin asserts that photography "acts on us as a natural phenomenon."[15] These initial steps, at least, are relatively secure.

However, there is a problem with Carroll's last premise—that any natural or causal process is also automatic. Any philosopher may, of course, stipulate that the term "mechanical" or "automatic" denotes any member of the class of

physical effects which result from well-known causal agents; indeed, Patrick Maynard stipulates that the term "mechanical" denotes a broad range of causally produced physical effects.[16] Thus, Carroll is right that "there is a way" in which all "natural, causal processes" are automatic. On this usage of the term "automatic," Carroll and Lackey are right to assert that the physical process of painting unfolds automatically or mechanically, after a brush loaded with medium and pigment touches a primed canvas of a particular weave. It seems to be precisely this wide sense of the word "automatic" that Carroll chooses to use throughout the text of his counterargument. But in a key maneuver, Carroll proceeds to attribute this same usage of the term "automatic" to Bazin. Having started with the assumption that Bazin uses the term "automatic" to denote any member of the class of physical, causal or natural products, Carroll advances to his last and most fragile premise: every "natural, causal process" is necessarily automatic in Bazin's sense. With this final premise in place, Carroll infers that every physical artwork satisfies Bazin's definition for an automatically made effect.

Ultimately, then, Carroll's counterargument poses no threat to Bazin's theory. If Carroll means to stipulate that the term "automatic" is to be used in the wide sense noted just above, and if "automatic" in this wide sense is attributed to Bazin, then we arrive at the conclusion that every physical medium is automatic in the sense that it is a causal effect. Does this conclusion contradict Bazin's assertion that photographs are automatically made in an exclusive sense? If Bazin used the term "automatic" in the wide sense noted here, then every physical medium would be automatic in Bazin's sense. No photograph or film frame would be automatic in an exclusive sense. But Carroll approaches this conclusion at the cost of presupposing, in his last premise, the very point at issue—that the term "automatically made," in Bazin's technical sense, denotes every physical product. Moreover, it may be argued that Carroll relies on an interpretation for the word "automatic" that is inconsistent with Bazin's original text; indeed, our earlier exegesis strongly supports an alternative interpretation on which Bazin uses the term "automatically made" to denote a proper subset of physical effects.

V. A CHALLENGE FOR BAZIN: TYPESCRIPTS AND PHOTOGRAPHIC PORTRAITS

Although his counterargument falls short, Carroll makes remarks which suggest another way to challenge Bazin's causal definition for automatically-made physical effects. Carroll asks, "Is the mechanical process between me and the final text any less automatic with the typewriter than with the camera?" If we use this interrogative sentence to direct our attention to that portion of the causal process which exists *between* the typist's finger and the final typescript, then difficult and substantive questions arise for Bazin's claim that photographs are automatic in an exclusive sense.

To begin with, typescripts and paintings satisfy Bazin's first necessary condition for membership in the set of automatically-made physical effects. There is no human agent *between* the finger of a typist and the typescript produced, nor is there any human agent between the initiating hand of the painter and the final mark left on canvas. Thus, if we use only Bazin's first necessary condition for any automatically-made effect, then his theory fails to exclude typescripts and paintings from the set of automatic products.

Does Bazin's second necessary condition for any automatically-produced physical effect manage to exclude typescripts and paintings from the set of automatic products? On Bazin's second necessary condition, a physical effect is an automatic product only if it is made without creative intervention by any initial person who may happen to be situated at the beginning of the causal process that terminates in that final effect. To judge the efficacy of this second necessary condition, we need to know which observable conditions are to determine an absence of creative intervention by an initial human agent who happens to be coextensive with the physical object of representation. Unfortunately, in "The Ontology of the Photographic Image," Bazin does not specify any such conditions.

To give some meaning to Bazin's second necessary condition for any automatic effect, we may propose a provisional definition for the absence of creative human intervention. For example, we might stipulate, at least temporarily, that a physical effect is causally produced without creative intervention by a human agent only

if that effect is the result of a causal chain that contains no physical events coextensive with a human agent. If we combine this temporary definition for the absence of creative intervention by human agents with Bazin's second condition for any automatically made effect, then typescripts and paintings pose no problem. For a typewritten novel is the product of a causal chain that begins with the fingers of a human agent, and Leon Golub's painting "White Squad X," whether it is construed as a representation of political oppression in the Americas caused by death squads or else as a sample of the effects of scraping, is a product of a causal process which begins with Golub's initiating hands.

However, a new problem prevents us from resting with this provisional definition for instances of creative human intervention within causal processes. If we use this first stipulative definition as part of Bazin's second necessary condition for automatic products, then the conditions for membership in the class of automatically-made physical effects become too strong. For example, consider a particular take used in the documentary film *Shoah,* where Claude Lanzmann stands beside a building which was the synagogue of Grabow. As he reads a letter written in January of 1942 by Jacob Schulmann, Lanzmann is part of the initial physical circumstances from which film frames are produced; indeed, *Shoah* is as much about Lanzmann and physical events in present-day Poland, as it is about the specific historical events of the Holocaust. So, if we argue that the painting "White Squad X" is not automatically made because it is the physical effect of a causal process that begins with a human agent, such as Golub, then the film images made from Lanzmann and used in *Shoah* are disqualified too.

If Bazin defined the absence of creative human intervention from a causal process in terms of the complete absence of human agents from such a process, then his theory would give the wrong answer when confronted with cases of film frames made photographically from people. As one might expect, Bazin's writings provide evidence for the conclusion that he does not use the provisional definition cited above to define the absence of creative human intervention. For example, in his review of Marcel Ichac's film *Annapurna,* Bazin states that the images of Herzog and Lachemal, two mountain climbers, are objective in character. In describing this footage of the climbers, Bazin asserts that photographic representations have a special effect that cannot be matched by written accounts or human memory: "But who," he asks, "can fail to see the difference between memory and that objective image that gives it eternal substance?"[17] If Bazin claims that the images produced from Herzog and Lachemal have the kind of objectivity which results from the automatic process of photography, then it is unlikely that he defines the absence of creative human intervention within the process of photography in terms of the complete absence of human agents from that process.

Nevertheless, we still need to define the term "absence of creative human intervention" in such a way that Bazin's second necessary condition for an automatically-made effect becomes both narrow enough to exclude typescripts and handmade paintings, and also wide enough to include photographs and films made from people.

VI. A DEFINITION FOR THE TERM "CREATIVE INTERVENTION"

After studying "The Ontology of the Photographic Image," it is clear that Bazin does not express explicitly his conditions for the absence of creative human intervention. To arrive at a viable version of Bazin's second necessary condition for any automatically made effect, I offer here a causal definition for the absence of creative intervention by any human agent located within a causal process such as photography.

On the definition I propose, a photograph of a person is automatically made in Bazin's sense only if the person photographed is not a necessary causal condition for the physical existence of the final photographic product. In general, if a person is at the beginning of a causal pathway that ends with an artwork, and if the process of production continues after the sudden physical removal of that initial person from that causal pathway, then that person is not a necessary condition for the physical product and is said to be "absent" from the causal process that terminates in that product. But if the physical production of an artwork ceases when an originating person suddenly leaves or exits from the causal chain of physical events that terminates with that work, then that initial person is necessary for the existence of that work and intervenes creatively

in its physical production in such a way that the final product fails to qualify for the title "automatically made."

If we combine this new causal definition for the absence of creative human intervention with Bazin's second necessary condition, then typescripts and paintings are excluded from the set of automatically-made physical effects, just as Bazin suggests. Typescripts are not automatically made in Bazin's specified sense, because the touch of a human typist is necessary for the process of typing and the production of typed inscriptions, whether those inscriptions refer to known objects or not. Similarly, it follows that no painting is automatically made in Bazin's sense, because the physical touch of a human painter is always necessary for the continuation of the causal process that results in an existing physical painting. To put this another way, the painting "White Squad X" is not automatically made, because the process of painting ceases as soon as Leon Golub takes a break or leaves his studio.

But does this new definition of the absence of creative intervention render Bazin's second necessary condition wide enough, so it includes photographs and films made from people? Bazin's critics might now argue that the causal definition that I propose does not make Bazin's second condition wide enough, because any person photographed is obviously necessary for the production of a photographic image that pictorially represents that same person. If a person sitting for a portrait photographer is necessary for the photographic production of a recognizable likeness, then is not that person also necessary for any photographic product made from that same person? While this objection must be answered, it poses a perplexing challenge. On the one hand, if we cannot explain how a person being photographed is not a necessary condition for photographs made from that person, then doubt will arise as to whether the definition I offer for the absence of creative human intervention is satisfied by photographic portraits or filmed interviews. On the other hand, how does one demonstrate that a person sitting for a photographic portrait is not a necessary condition for the photographic product made from that very same person by some photographer?

The requisite demonstration is within reach, if we distinguish between the taking of a visible photograph and the production of the form that a visible photograph happens to take. Any visible work of art made in a physical medium may be described as the product of an observable causal process which terminates in the physical existence of that artwork, when that work is considered without regard to its style or imagery; and that same work may be described as the product of a second causal process which terminates in the form or imagery exemplified by that artwork, when that work is construed without regard to the physical medium in which it exists. In the case of a causal product that is a photographic image, we must distinguish between the act of construing that product as a photochemical effect or physical trace of some initial object (which may or may not be recognizable in the final product), and the act of construing that very same product as an image, a depiction, or a pictorial representation.[18] Any visible photograph or film frame—representational, experimental, blurry or recognizable—may always be perceived or perceptually classified in at least two ways: as a sample of the physical effects of some antecedent causal conditions, and as a sample of plastic or image-related properties, including (but not limited to) those perceived by concepts pertaining to color, line and shape.[19]

This distinction between the genetic and the image-related (or plastic) properties of any visible photograph or film frame is clarified, if we return to the nonfiction documentary film *Shoah*. Having started his first response to Claude Lanzmann's questions about the Warsaw ghetto in 1942, Jan Karski suddenly gets up and leaves. With Karski absent, the camera continues to dwell on the empty couch which supported Karski just seconds before. From the perceptual standpoint of a spectator watching *Shoah*, the area of the film frame taken up by Karski diminishes, as each consecutive frame made by Lanzmann's camera is projected onto the motion picture screen. A director with different interests might have cut the footage of Karski's departure and the empty couch, but Lanzmann helps us to make several important inferences by retaining this entire take. First, as spectators, we understand that Karski's physical presence is necessary both for the production of film frames which pictorially represent or resemble him, and also for the production of magnetic recordings which acoustically represent his vocal expression con-

cerning the Warsaw ghetto in 1942. Second, the film spectator infers through observation that Karski's physical presence is *not* a necessary condition for the film frames produced after his departure. Third, given that the process of exposing film frames is a constant in this case, the film viewer infers that there must also be some sense in which Karski is not a necessary condition for the physical existence of the film frames in *Shoah* which *do* in fact resemble or represent him pictorially. Indeed, we are able to say now that Karski is not a necessary causal condition for the physical production of film frames, even when those frames also pictorially represent shapes or colors that Karski himself exemplifies at the moment of filming; those same film frames (considered as physical effects and not for their imagery) would have been exposed photographically even in his absence.

Given this final distinction between the exemplification of physical and plastic properties by the same visible artwork, the causal definition which I propose here for the absence of creative human intervention succeeds in making Bazin's second necessary condition for automatic effects wide enough to include photographs and film frames made from people. In the case of portrait photography or filmed interviews, the initial person being photographed or filmed (e.g. Karski) is not a necessary causal condition for the existence of the photographic product (when that product is considered as a physical medium and not for its plastic properties or imagery); therefore, we say that any photograph or film frame made from Karski is the product of a causal process that is not initiated by an act of creative intervention on his part. In the case of *Shoah*, where Lanzmann chooses to read Schulmann's letter, the images are made automatically without creative human intervention, in Bazin's sense; Lanzmann is not needed for a continuation of the causal process which results in the photographic exposure of the camera film. Obviously, Lanzmann and Karski choose to act in ways that determine the imagery exemplified by the film frames of *Shoah;* nevertheless, the production of film frames continues by means of the agency of light, whether or not Lanzmann and Karski exit the physical site of filming. Again, frames used in the documentary film *Golub* are automatically made from Leon Golub and Nancy Spero, as these artists paint, scrape or print; neither Golub nor Spero is a necessary causal condition for the continuous production of film frames.

VII. THE SUCCESS OF BAZIN'S ACCOUNT

André Bazin is right that photographs are made without the kind of human intervention which occurs during the production of other artworks, such as paintings. Photographs and film frames are automatic in an exclusive sense, because they are the effects of a particular kind of causal chain that is not associated with paintings and typescripts. Moreover, with clarifications, Bazin's definition for an automatic process is narrow enough to exclude typescripts and paintings but wide enough to include photographs, films and videotapes made from people.[20] While he acknowledges that the photographer intervenes in order to form the image displayed by a photograph, Bazin insists that the photographic aspect of the final physical effect is a consequence of an observable causal process that may be described without making any reference to human intervention.

It is still true that photographs, film frames, typescripts and paintings function symbolically or cognitively according to the interests and expectations of producers and audiences. But if we accept Nelson Goodman's hypothesis that any picture may be construed to represent, or at least denote, almost anything, then we must also insist that no picture may be construed to *exemplify,* or to serve as a literal sample of, almost anything.[21] Specifically, although paintings may be construed as pictorial representations or symbols of the photographic process, no painting can be construed as a sample of the kind of physical effect which results from a causal chain that is automatic in Bazin's sense.

The conditions which Bazin sets for any automatically-made effect entail that some media, considered as distinct physical technologies, symbolize information that other media cannot. For example, a spectator now has reason to believe that information obtained from representational photographs probably applies to physical events that existed at the moment of photographic exposure; therefore, there is a way in which Bazin's theory of photography shores up the thesis traditionally advanced by realist film theorists—that representational images in film have a special

epistemic function. Prosecutors, journalists, scientists and political activists may cite Bazin's account to justify their contingent preferences, in some matters of practice, for photographs, films and videotapes.

Yet, Bazin's theory of automatic production also entails that paintings have a symbolic function that cannot be matched by photographs. The causal chain from Leon Golub to his painting "White Squad X" does not satisfy Bazin's second necessary condition for an automatic product; so, this painting becomes a sample of the kind of physical effect that is produced by an initial person who *does* intervene creatively. As John Berger suggests, a person living today may value a painting as a physical sample of an effect made by the touch of another historically situated human agent.[22] Therefore, no hierarchy within the arts follows from Bazin's thesis that photography is an automatic process.

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1. André Bazin, "Ontologie de l'image photographique" in *Qu'est-ce que le cinéma?, I. ontologie et langage* (Paris: Éditions du Cerf, 1958), trans. Hugh Gray, as "The Ontology of the Photographic Image" in *What Is Cinema?* (University of California Press, 1967).

2. Noël Carroll, *Philosophical Problems of Classical Film Theory* (Princeton University Press, 1988), p. 154.

3. The French word "l'objectif" denotes photographic lenses.

4. Bazin, "Ontologie de l'image photographique," p. 15. Translations from the original French text are mine, unless otherwise noted. See also Hugh Gray's standard English translation of the original French essay, titled "The Ontology of the Photographic Image" in André Bazin, *What Is Cinema?* trans. Hugh Gray (University of California Press, 1967), p. 13: "For the first time an image of the world is formed automatically, without the creative intervention of man." Unfortunately, Gray uses the phrase "of the world" (for *du monde extérieur*) and neglects to translate both the phrase "according to a rigorous determinism" (*selon un déterminisme rigoureux*) and the original French word *visible* (in *si visible qu'elle soit dans l'oeuvre finale*). Thus, English speaking scholars, producers and activists who base their judgment of Bazin's realist theory upon Gray's translation have no access to key words, present in the French text, that signal the breadth and subtlety of Bazin's position. For earlier criticism of Gray's translation, see Richard Roud, "André Bazin: his fall and rise," *Sight and Sound* 37 (1968): pp. 94–96. Roud's article is cited incorrectly as "André Bazin: His Rise and Fall" in Dudley Andrew's useful bibliography for Bazin. See Dudley Andrew, *The Major Film Theories* (Oxford University Press, 1976), pp. 267–268.

5. Additional evidence for the hypothesis that Bazin uses the term "automatically made" to denote the products of a physical process may be found in a second essay, "Theater and Cinema," where he writes of the "scientific techniques of reproduction inaugurated by photography." See André Bazin, "Theatre et Cinema" in *Qu'est-ce que le cinéma?, II. le cinéma et les autres arts* (Paris: Éditions du Cerf, 1959), p. 92.

6. Bazin, "Ontologie de l'image photographique," p. 14.

7. It might be objected that Bazin's account of photography cannot be that of a physicalist, because his program, as Carl Plantinga correctly points out, is modeled on the writings of Maurice Merleau-Ponty. (See Carl Plantinga, "Defining Documentary: Fiction, Non-Fiction, and Projected Worlds," *Persistence of Vision* 5 [1987]: p. 52.) However, reliance upon the phenomenological approach of Merleau-Ponty does not entail that Bazin must renounce the use of terms that denote scientific objects. Merleau-Ponty affirms that accounts of objective or scientific phenomena have a utility of their own. He may bracket scientific language, but he does this to articulate the thesis that scientific discourse presupposes a visible world which is perceived and experienced phenomenologically by the individual person who maintains a situated openness. A similar mistake is made, if one cites the influence of Emmanuel Mounier, an existentialist committed to a non-secular version of personalism, as a reason for believing that Bazin cannot advance a scientific description of the process of photography. According to Mounier, even persons have natural bodies which may be described in scientific, materialist and deterministic terms. See Emmanuel Mounier, *Oeuvres*, Vol. III. (Paris: Éditions du Seuil, 1962), p. 444, trans. by P. Mairet, as *Personalism* (New York: Grove Press, 1952), pp. 3–4.

8. Bazin, "Ontologie de l'image photographique," p. 14.

9. It is probable that Bazin uses the French word "l'homme" to denote all persons, not merely those persons literally denoted by the term "man" at this historical moment. But by using "man" as a generic term for the denotation of all human spectators, Bazin makes it more difficult to classify, discuss and study the different effects which stem from the various gender categories that are constructed, selected and exemplified by particular film producers, directors and audiences. For a sobering list of the ambiguities and logical errors that arise from the use of "man" as a generic term, see Dale Spender, *Man Made Language* (London: Routledge & Kegan Paul, 1980), 138–162; and also Genevieve Lloyd, *Man of Reason: 'Male' and 'Female' in Western Philosophy* (University of Minnesota Press, 1980).

10. Bazin's more global statement also implies a third corollary which may be used to determine cases of automatic production, when the physical effect is coextensive with a human agent. Instances of sunburn on my physical body (considered apart from the size and shape of the afflicted area) seem to satisfy Bazin's conditions for automatically made products.

11. Bazin's remarks do not entail that photographs are automatically made from electromagnetic events alone.

12. Noël Carroll, *Philosophical Problems of Classical Film Theory*, p. 154.

13. Ibid., p. 155. In a footnote, Carroll refers us to Douglas Lackey, "Reflections on Cavell's Ontology of Film," *Journal of Aesthetics and Art Criticism* 32 (1973): 271–73.

14. In writing about photography, Patrick Maynard makes

the following claim: "Every depiction, that is, every thing, state, or event whose function is to prescribe our imagining seeing something upon seeing *it*, came to be what it is by physical causes." See Patrick Maynard, "Talbot's Technologies: Photographic Depiction, Detection, and Reproduction," *Journal of Aesthetics and Art Criticism* 47 (1989), p. 270.

15. Bazin states that photography "acts on us as a natural phenomenon, like a flower or a snowflake." However, I take this to mean that a photograph is a natural phenomenon of the particular sort exemplified by snowflakes, that is, a physical or natural effect produced without the type of creative human intervention that occurs in the physical process of painting.

16. Patrick Maynard stipulates that a mechanical causal agent is whatever has the property of providing "repeatable background conditions for causal functional relationships." Maynard holds that photographs are the effects of a mechanical process, because in photography the causal pathway between the object of representation and the final image is constituted by a continuous set of repeatable background conditions which enable us to say that the final image and the originating physical object vary in a law-like way. For Maynard, any physical product of a causal pathway observed to be continuous and repeatable qualifies as a mechanically made effect. To prevent paintings from qualifying as mechanical products, Maynard makes the rather unsatisfying suggestion that our lack of scientific knowledge prevents us from identifying paintings with antecedent causal conditions that are both continuous and repeatable. See Patrick Maynard, "Talbot's Technologies," p. 271.

17. Bazin, *What Is Cinema?*, p. 162.

18. For another expression of this distinction, see Patrick Maynard, "Talbot's Technologies," p. 268. Maynard asserts that a photograph may be construed both as a picture and as a photochemical effect or trace which, in principle, permits the physical detection of the object depicted.

19. According to Monroe Beardsley, properties of a work given in direct sensory awareness (e.g. those properties pertaining to color, texture, smoothness, roundness of form) are perceptual, whereas properties pertaining to the physical basis of a work (e.g. acoustical patterns, light waves, electrons in a picture tube) are not part of the perceptual artwork itself. See Monroe Beardsley, *Aesthetics* (Indianapolis: Hackett, 1981), pp. 29–34. But I maintain here that physical properties exemplified by any visible or audible work (such as the physical property of being the terminus of an automatic process) are perceptual properties too. For criticism of the sense-datum theory implicit within Beardsley's program and an explication of the thesis that physical objects are ostensible, see Roderick Firth, "Sense-Data and the Percept Theory," *Perceiving, Sensing, and Knowing*, ed. Robert Swartz (University of California Press, 1965), pp. 204–270.

20. A snowflake or a geological formation also qualifies as an automatically made product; however, neither of these physical effects is produced by means of the photochemical agents that occur during photography.

21. Nelson Goodman, *Languages of Art* (Indianapolis: Bobbs-Merrill, 1968), p. 38.

22. John Berger, *Ways of Seeing* (London: Penguin, 1971), p. 31.